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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,931	02/14/2002	Bharat Tarachand Doshi	Doshi 52-2-17-18-1-1	5324

32498 7590 01/25/2007
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EXAMINER

LESTER, EVELYN A

ART UNIT	PAPER NUMBER
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2873

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/073,931

Applicant(s)

DOSHI ET AL.

Examiner

Evelyn A. Lester

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 16-18, it is unclear what the group of elements of "gigabit Ethernet", "2R unit", a "3R unit", a "SDL unit" or a "SONET/SDH unit" actually is.

In other words, the group of elements defines what can be included in the claimed invention, excluding all other elements. The transitional phrase "consisting of" excludes any element not specified in the group, i.e. the claimed invention can only have these elements. The group of elements listed in claims 16-18 should collectively infuse meaning to the claimed invention through their similar characteristics and/or functions. There appears to be no infused meaning by the grouping of these elements. In light of the specification, the use of "consisting of" may be a misrepresentation for the grouping of elements used as "processing units." Please note specification on page 8, paragraph [0027], which does not teach or suggest a closed grouping of the elements recited in claims 16-18. Further, if claims 16-18 are considered to be definite and clear, then this presents confusion in light of claims 2-5, 7-11 and 12-15 which recite the use of other processing units, which are not included in claims 16-18.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-6, 9-11, 14 and 15, as far as these claims are understood, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Fee et al (U.S. patent 5,726,788).

Fee et al disclose the claimed invention of a connection device or router, and the method for providing an optical, service-enabled connection, comprising one or more processing units (f1-f7) and an optical switch (308) for receiving “non-processed” optical signals and to connect at least one of the units to one or more optical signals based on a characteristic of each signal.

With respect to claims 4, 5, 9, 11 and 14, please note Figures 3 and 7, and their accompanying text, especially at column 4, line 5 to column 5, line 19, as well as column 5, line 56 to column 6, line 7; column 7, lines 1-5; lines 24-32 and lines 56-63; and column 8, lines 13-39.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al (U.S. patent 5,726,788) in view of Wong et al (U.S. patent 6,624,927 B1).

Fee et al disclose the claimed invention as described above, except for explicitly including various specific processing units, such as a Raman pump. Fee et al does teach various examples of processing units, in a "non-exclusive representative list," as noted at column 4, line 46 to column 5, line 10. Fee et al further teaches in that non-exclusive list the use of an amplifier (col. 4, lines 49-50) and/or pump insertion (col. 4, lines 58-59) processing units, as part of necessary signal processing functions. Wong et al teaches that it is well known to utilize a Raman pump for the purpose of amplifying optical signals in an optical communications network, so that the power of the signals is maintained at a constant level, thereby avoiding signal degradation due to lost signal power. Wong et al further teaches that various Raman pumping arrangement may be used to pump any suitable optical fiber communications system, such as fiber in optical network equipment including add/drop modules or optical switches (Wong et al at col. 3, lines 49-59). Therefore, it would have been well known to one of ordinary skill in the art to utilize the well known Raman pump of Wong et al for the purpose of amplifying

Art Unit: 2873

optical signals and/or pump insertion, thereby providing necessary signal processing functions as taught by Fee et al. Please also especially note Fee et al at column 2, line 33 to column 3, line 16.

4. Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al (U.S. patent 5,726,788) in view of Sharma et al (6,331,906 B1).

Fee et al disclose the claimed invention as described above, except for explicitly including various specific processing units, such as an optical-electrical-optical regenerator. Fee et al does teach various examples of processing units, in a "non-exclusive representative list," as noted at column 4, line 46 to column 5, line 10. Fee et al further teaches in that non-exclusive list the use of a modulation reshaper and the need for a regenerating process operation (note col. 4, lines 5-17), as part of necessary signal processing functions. Sharma et al teaches that it is well known to utilize an optical-electrical-optical regenerator for the purpose of reshaping optical signals in an optical communications network through techniques for restoration of network services in the event of a failed fiber link (e.g. a break in a fiber or a failure of an active element such as a fiber amplifier) and the use of optical switching to affect such restoration (note Sharma et al at col. 1, lines 53-58). Therefore, it would have been well known to one of ordinary skill in the art to utilize the well known optical-electrical-optical regenerator of Sharma et al for the purpose of reshaping optical signals and affecting signal restoration, thereby providing necessary signal processing functions as taught by Fee et al. Please also especially note Fee et al at column 2, line 33 to column 3, line 16.

No Allowable Subject Matter

5. No allowable subject matter can be indicated at this time, due to the indefiniteness of claims 16-18.

Response to Arguments

6. Applicant's arguments filed 11-06-06 have been fully considered but they are not persuasive.

The Applicant's arguments that the prior art to Fee et al does not teach or suggest a connection device that comprises an optical switch that receives ULR optical signals is not well received. The Applicants believe that Fee et al is not directed towards ULR signals because it repeatedly discloses the need for amplification of an optical signal and that it is a characteristic of ULR signals that amplification is not always required. Yet in their specification on page 1, paragraph [0002], the Applicants' explicitly describe ULR networks are characterized by their ability to transmit signals extremely long distances without the need to process the signals other than simple amplification. It is this simple amplification that Fee et al utilizes. Fee et al's claimed invention would appear to be working within a URL, because it addresses the need for keeping the signal strong, which is taught by the Applicants as indicated above as a characteristic of a URL. Please also note the network indications at column 1, lines 49-61.

With respect to Fee et al not teaching or suggesting the "non-dedicated" processing units," this too is not well received. Fee et al has one or more "non-dedicated" processing units as explicitly described in column 5, lines 56-67, wherein the

optical signal can be routed to any one of the functions or "processing units," either to one function or sequentially to multiple functions. Fee et al describes functions that operate in the same manner as the Applicant's invention, wherein intelligence and flexibility to the processing operations are performed upon the optical signal. Note column 8, lines 20-34.

With respect to the Applicants' arguments directed to the 103 rejections, these arguments rely on the arguments addressed above, therefore no further response is provided at this time.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2873

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (571) 272-2332. The examiner can normally be reached on M-F, subject to an increased flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Evelyn A. Lester
Primary Examiner
Art Unit 2873